ARDELEAN DANIEL-GEORGE

Masters Distributed Systems University Babes Bolyai





Cluj-Napoca, Romania

in ardelean-george

Giuco-senpai45

Portfolio website



PROFESSIONAL EXPERIENCE

Internship Ruby on Rails Backend Developer

Appssemble

March 2022 - June 2022

Cluj-Napoca

- Created custom API's and deployed them to production
- Automate server-side functions to run at a set time using Cronjobs and Sidekiq
- Created and administrated blob storages in the form of AWS S3 buckets
- Worked in an Agile environment
- Created complex relational databases using Rails Active Records

Junior Full-Stack Developer

Appssemble

June 2022 – November 2022

Cluj-Napoca

Continued developing my abilities of creating quality production software in the form of MVP's (Minimum Viable Products).

- sent and confirm e-mails using Devise and Sendgrid
- created and ran scripts (different languages bash, python, java) or executables from the Rails server
- analysed and take architectural decisions in implementing the API's and the database (schema of the database and the endpoints offered by the API)
- created the actual frontend for the product using React with Redux and Tailwind

Backend Developer

Lasting Dynamics

- Architected and developed two different API's (Go and Express)
- Implemented protected routes through sessions in the form of cookies with JWT
- Embedded the API's in a Kubernetes cluster deployed on AWS using EKS
- Worked in an agile environment with weekly scrums

ABOUT ME

Hi, my name is Daniel and I consider myself a highly achieving individual. If you're looking for a new spark of joyfulness mixed with actual real world practical knowledge, I might just be the right person to contact.

For more details about myself I highly suggest checking out my *portfolio site* and maybe we get to know eachother even better.

PERSONAL STRENGTHS

Hard-working Team-player Curios

Eye for detail Motivated Charismatic

LANGUAGES

Romanian (native)

English (C1)

German (B1)

EDUCATION

Bachelors Computer Science Universitatea Babes Bolyai

= 2020 - 2023

Cluj-Napoca

Cambridge English Level 2 Certificate in ESOL International (Advanced)

Cambridge

2019

Overall score 195 (level C1)

TECHNICAL SKILLS

React JavaScript & Typescript Svelte & Sveltekit TailwindCSS

Python Java C# C++ Apache Kafka SQL

Go Scala Ruby & Ruby on Rails Bash Kubernetes

Git Figma Docker Postman

Advanced Data Structures Microservices

Distributed Systems

PROJECTS

Task tracker

Personal project

May 2024

Motivation: Better understand how to implement failover and load balancing mechanisms in distributed systems. Process: I created a microservice architecture implying 3 services. An authentication service registering and logging users (protects the routes with JWT's), a task tracking service that handles managing the tasks of an user and a notification service that checks periodically for deadlines using the Kafka Producer/Consumer pattern. The load-balancing and failover is managed by a Nginx reverse proxy.

Results: A resilient distributed system that can handle a high traffic of users and supports failover and recovery of services, without losing data or piped messages.

Go GORM Postgres Locust Docker NGINX Apache Kafka API REST Load balancing

Volunteers API

Personal project

February 2024

Motivation: Modernize an outdated and poorly performant API into a modern, efficient one.

Process: Redesigned the relational database entity relationships. Modeled in a REST manner the endpoints for interacting with the database.

Results: Improved with over 50% the overall speed of the API, reduced the image size for the internal intranet.

Go GORM Postgres Fiber Docker API REST

Project Manager

Personal project

December 2023

Motivation: Understand deploying a cluster into the cloud.

Process: Modeled 2 APIs for managing projects. The API's are containerized and and deployed in a cluster on the prefered cloud provider.

Results: Visualised the whole dynamic of designing, implementing and deploying a functioning product on cloud.

Go GORM ExpressJS Postgres Docker Kubernetes AWS EC2 EKS

Search Engine

Personal project

November 2023

Motivation: Understand how a search engine works and apply data mining techniques and optimizations to create an efficient one.

Process: To measure the accuracy of the search engine I used a database containing lots of wiki pages and parsed them to create an inverted index. Then lemmatization was used to reduce inflexions of natural language and make the queries actually work.

Results: The search engine gets an average of 63 100 correct answers when returning the top 10 articles found for a certain query.

Java Lucene Data mining Inverted Index Tokenization Lemmatization

JamSpot

Bachelor's Thesis Project

May 2023

Motivation: Understand the inner workings of recommender systems and how they power user experience on various platforms.

Process: Using various data mining techniques I created a hybrid ensemble that uses knowledge based recommendations when a new user arrives, and after the user has a more definedprofile, the model switches to a collaborative filter boosting strategy by using a Kmeans clustering strategy to recommend closely related songs.

Results: A platform that let's users explore their musical tastes by interacting with the hybrid music recommender system.

Sveltekit Prisma Tailwind Supabase Python Recommender Systems Kmeans Clustering Data Mining